

What is claimed is:

1. A composition for inducing cartilaginous tissue formation and maintenance comprising a BMP.
- 5 2. A method for inducing formation and/or maintenance of chondrocytes or cartilaginous tissue in a patient in need of same, said method comprising administering to said patient an effective amount of the composition of claim 1.
- 10 3. A method for treating arthritis, or other cartilaginous tissue defect in a patient in need of same, said method comprising administering to said patient an effective amount of the composition of claim 1.
4. A method for treating articular cartilage defects or damage in a patient in need of same, said method comprising administering to said patient an effective amount of the composition of claim 1.
- 15 5. The composition of claim 1, wherein said BMP is selected from the group consisting of BMP-2 and BMP-9.
6. The method of claim 2 wherein said BMP is selected from the group consisting of BMP-2 and BMP-9.
7. The method of claim 3 wherein said BMP is selected from the group consisting of BMP-2 and BMP-9.
- 20 8. The method of claim 4 wherein said BMP is selected from the group consisting of BMP-2 and BMP-9.

9. A composition for blocking or suppressing the inhibitory effects of IL-1 or TNF said composition comprising a BMP.
10. The composition of claim 9, wherein said BMP is selected from the group consisting of BMP-2 and BMP-9.
- 5 11. A method for blocking or suppressing the inhibitory effect of IL-1 comprising administering an effective amount of a BMP.
12. The method of claim 12 wherein said BMP is selected from the group consisting of BMP-2 and BMP-9.
- 10 13. A composition comprising MMCs and a BMP for use in articular cartilage repair.
14. A composition for inducing chondrogenesis said composition comprising IL-11 and BMP-9.
15. A composition for inducing chondrogenesis said composition comprising non-tissue culture expanded cells isolated from bone marrow.
- 15 16. The composition of claim 15 wherein said cells are CD105+ cells.
17. The composition of claim 16 further comprising a suitable matrix.
18. The composition of claim 17 further comprising a bone and/or cartilage inducing factor.
19. The composition of claim 18 wherein said factor is a BMP.

20. The composition of claim 19 wherein said BMP is selected from the group consisting of BMP-2 and BMP-9.
21. A method for inducing chondrogenesis in a patient in need of same, said method comprising administering to said patient an effective amount of a composition comprising non-tissue culture expanded cells isolated from bone marrow.
22. The method of claim 21 wherein said cells are CD105+ cells.
23. The method of claim 22 further comprising administering a bone and or cartilage inducing factor.
24. The method of claim 23 wherein said factor is a BMP.
25. The method of claim 24 wherein said BMP is selected from the group consisting of BMP-2 and BMP-9.
26. A method for treating arthritis, or other cartilaginous tissue defect in a patient in need of same, said method comprising administering to said patient an effective amount of the composition of claim 15.
27. A method for treating articular cartilage defects or damage in a patient in need of same, said method comprising administering to said patient an effective amount of the composition of claim 15.
28. A composition for tissue repair said composition comprising non-tissue culture expanded cells isolated from bone marrow and a bone and/or cartilage inducing factor.

29. The composition of claim 28 wherein said isolated cells are CD105+ cells and said factor is a BMP.
 30. The composition of claim 29 further comprising a suitable matrix.
 31. The composition of claim 30 wherein said BMP is selected from the group consisting of BMP-2 and BMP-9.
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